File
99760 4
RPA

January 11, 1965

PROCESSOR DEVELOPMENT PROGRAM

STAT

STAT The [ ] clean room installation is moving along at a good clip. The flooring and walls are installed; they are working on the ceiling, lighting fixtures, and electrical
STAT details. [ ] expects actual construction to be done by the end of January except for air conditioning which is to be completed by mid-February.

STAT [ ] has four tasks in work:

a. Making up a comprehensive chart of film characteristics.

b. Making a continuing photo record of the clean room installation.

c. Conducting fundamental testing of processing temperature/processing time on three films--4400, 4404, and S0278 up to about 118°F.

d. Investigating elastic deformation (distortion) of wet film under tension.

STAT [ ] is providing guidance and assistance for the temperature/time work. Such information should be
25X1 available from [ ] but [ ] indicates that all STAT 25X1
their inquiries have been to no avail. If [ ] has gathered such data, it apparently cannot be obtained from them. The same holds true for distortion of wet film under tension.

STAT [ ] designed a rig for measuring the force required to move film through water. This has been
STAT constructed and [ ] is preparing to conduct tests
STAT with it at the [ ] small boat marina, which is about five miles from HF.

Declass Review by NIMA/DOD

The procedure will be to submerge 100 ft of film a few feet under water. One end of the film will be attached to 100 ft of fishline and the force required to reel in the fish line at various speeds will be measured. The film will be kept in a long straight line by small drag chutes attached at intervals along its length. It will, of course, be necessary to measure the force required to reel in the fish line and chutes without film and subtract that from measurements with the film. The measurement may be susceptible to errors due to flutter or twist.

It seems to me that gathering of some of this fundamental information is undramatic and it is difficult to assess its worth. It is necessary, however, to do this at the beginning of an investigative program in order to establish a solid basis for future work. It is essential that the test data be reported carefully and accurately in a form useable on future work.

STAT [redacted] was rather enthusiastic over the possibilities of some new concepts in liquid bearings which he calls the rotocam. This is to be a completely self-contained bearing driven by an individual motor of less than 1/4 HP. Perhaps as little as 1/10 HP will be adequate. The bearing is designed to produce an inward spiral path to the fluid from both edges of the film in order to provide a self-centering feature.

Presently working on the program are:

STAT [redacted]

It seems to me that about the end of February or early March would be a good time for [redacted] to make a formal, personal presentation of the progress on the program and the results to date.

STAT [redacted]